

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003287**Date Inspected:** 04-Jul-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and Tower**Summary of Items Observed:**

The Quality Assurance (QA) Inspector Gregory Bertlesman arrived on site at the Zhenhua Port Machinery Company facility on Changxing island, China to periodically monitor welding and Quality Control functions. While on site the Quality Assurance Inspector observed and/or discovered the following.

OBG Sub-Assembly Bay 1**Deck Panel Production Welding**

The Quality Assurance Inspector witnessed the welding of the production panels DP-548-002 (5 rib) and DP-250-001 (5 rib). The welding of the deck panels was performed on gantry 1 to produce the partial joint penetration groove weld. Upon completion of the gas metal arc welding (GMAW) root pass ZPMC performed the subsequent submerged arc welding (SAW) pass. The parameters appeared to be within welding procedure specification for dual process WPS-B-T-2342-U1 (U-rib)-3.

The Quality Assurance Inspector observed ZPMC performing fit-up and tack weld operations to Deck Panel DP-439-001.

Bay 2

QA observed no ZPMC personnel working on the 114M Tower Mock-up assemblies.

OBG Sub Assembly Bay 3

The Quality Assurance Inspector observed ZPMC performing fit-up and tack welding operations to FB-011-001 and FB-010-001. The welders were using the shielded metal arc welding process to produce the fillet tacks welds

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in the horizontal position.

Bay 4

The Quality Assurance Inspector observed 13 diaphragm flanges in various stages of fabrication from fit-up to welding the complete joint penetration weld splices to the flange to diaphragm fillet weld connection.

Bay 7

The Quality Assurance Inspector observed ZPMC performing fit-up and tack welding operations to Floor Beams identified as FB-027-001, FB-039-001, and FB-040-001 plate stiffener to web plate connection. ZPMC was utilizing the SMAW process to produce the fillet tack welds in the horizontal position.

Bay 8 The Quality Assurance Inspector observed 14 diaphragm flanges in various stages of fabrication from fit-up to welding the complete joint penetration weld splices to the flange to diaphragm fillet weld connection.

The Quality Assurance Inspector observed ZPMC performing in process welding of OBG Sub Assemblies LD-004—001 and LD-020-003, plate stiffener to web connection. The welders were using the flux cored arc welding process to produce the fillet welds in the horizontal position. The Quality Assurance Inspector witnessed Quality Control measuring the interpass temperature using a calibrated infra-red temperature measuring device.

The Quality Assurance Inspector observed a ZPMC welding operator performing in process welding and back gouging of Floor Beam FB-008-001. The welder was using the submerged arc welding process and air carbon arc gouging process to produce the complete joint penetration welds in the flat position. The Quality Assurance Inspector recorded the welding parameters at the welder's station and found the parameters to meet the minimum requirements of the posted welding procedure specification. The Quality Assurance Inspector witnessed Quality Control measuring the interpass temperature using a calibrated infra-red temperature measuring device.

Summary of Conversations:

As stated in the contents of the above report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco(707) 552 7715, who represents the Office of Structural Materials for your project.

Inspected By:	Bertlesman,Greg	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer
